

Summary

- 5 A polarization mode dispersion (PMD) controller device for controlling the state
of polarization of an optical light wave comprising a dispersion compensation
unit (2; 25; 40) and an adaptation control unit (6; 28; 44), wherein the dispersion
compensation unit (2; 25; 40) comprises a multitude of compensation stages
processing the optical light wave, and wherein the adaptation control unit (6; 28;
10 44) controls the dispersion compensation unit (2; 25; 40) is characterized in that
at least one feed-forward signal tap (4; 26a-26c, 73a-73c) is provided tapping
the optical light wave inserted into one of the compensation stages,
that the feed-forward signal(s) is(are) fed into a distortion analyzer unit (5; 27;
66) and that the distortion analyzer unit (5; 27; 66) provides the adaptation
15 control unit (6; 28; 44) with information about the incoming optical light wave. It
accelerates the adaptation speed and lowers the costs of a high-speed PMD
controller device.